

# Work Order ID 111019

January-08-14 12:52:01 PM

\*111019\*

Page 1

Item ID: D3631-1 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Washer  
 Start Date: 1/08/14 Start Qty: 100.00 \*100\* Cust Item ID:  
 Required Date: 1/08/14 Req'd Qty: 100.00 \*100\* Customer:  
 Reference:

Approvals: Process Plan: MLJ Date: 14-01-10 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3631	Rev A

100 PURCHASING 0.00  
 \*100\*  
 Purchasing Memo 0.00  
 Purchasing Issue P/O: 22590 Purchase Part Number: 95606A170 Supplier: Mc  
 Master CarrCertificate of conformity is required

CL 14/01/13 100

110 Receive & Inspect for Damage & Mat'l Certs 0.00  
 \*110\*  
 Packaging Memo 0.00  
 Packaging Ensure certificate of conformity is attached

14/01/14 (100)

120 QC6- Inspect dimensions to drawing 0.00  
 \*120\*  
 QC Memo 0.00  
 Quality Control

DAS  
 27  
 9-89  
 14/1/14

100

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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# Work Order ID 111019

January-08-14 12:52:01 PM


**\*111019\***

Page 2

Item ID: D3631-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Washer  
 Start Date: 1/08/14 Start Qty: 100.00 **\*100\*** Cust Item ID:  
 Required Date: 1/08/14 Req'd Qty: 100.00 **\*100\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>FR01</u>	0.00							
<b>*130*</b>									
Packaging	Memo	0.00				100 X	DAS 28 9-89	14-01-14	
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

14-01-15  
 14-01-14

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

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# Picklist Print

January-08-14 12:52:00 PM

Page 1

Work Order ID: 111019

Parent Item: D3631-1

Parent Item Name: Washer

Start Date: 1/08/14

Required Date: 1/08/14

Start Qty: 100.00

Required Qty: 100.00

Comments: IPP Rev:A New Issue 07-07-28 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
95606A170 Washer		Purchased	No			110	Each	0.0000	1	100			

111019 P44/01/14 (150)

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
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Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

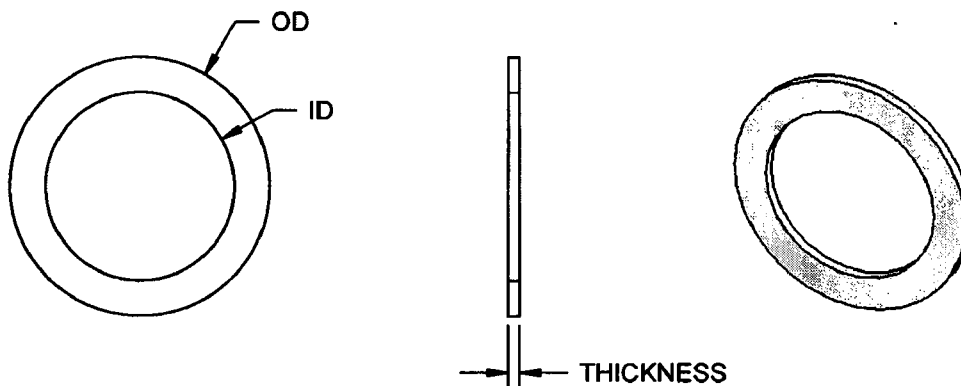
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DESIGN <b>CB</b>	DRAWN BY <b>CB</b>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>PH</b>	APPROVED <b>[Signature]</b>	DRAWING NO. <b>D3631</b>	REV. A SHEET 1 OF 1
DATE <b>07.05.16</b>		TITLE <b>WASHER</b> SCALE NTS	
REV <b>A</b>	DATE <b>07.05.16</b>	DESCRIPTION <b>NEW ISSUE</b>	

## SPECIFICATION CONTROL DRAWING



**D3631-X WASHER**

**RELEASED**  
07.08.02 **[Signature]**

PART NUMBER	OD	ID	THICKNESS	MATERIAL	SUPPLIER
D3631-1	0.688	0.500	0.031	NYLON	McMASTER-CARR P/N: 95606A170

**NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO22590

Purchase Order Date 1/13/2014

PO Print Date 1/13/2014

Page Number 3 of 4

**Order From :**

VU-MCM001

**Ship To :** DART AEROSPACE LTD

MCMASTER-CARR SUPPLY CO,  
P.O. BOX 7690  
CHICAGO, IL 60680-7690  
US

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**

**Vendor Phone** 330 995 5500

**Ship To Contact**

**Ship To Phone**

**Ship Via:** FedEx PI collect

**Ship Acct:**

**Buyer**

**Customer POID**

**Customer Tax #**

**Terms**

**Currency**

**FOB**

Chantal Lavoie

10127-2607

Net 10

USD

FCA - (Free Carrier)

**Line Total:** \$12.06

**Deliver To:** CARL

7	71500-15	4629T21 COMPARTMENT PLASTIC BOX	1/14/2014	3.00	✓	\$15.60	\$46.80
			Yes 1/14/2014	Each			

**Line Total:** \$46.80

**Deliver To:** CARL

9	90145A630	Pin	1/14/2014	10.00		\$2.65	\$26.52 ✓
			Yes 1/14/2014	Each			

AS PER DWG D3954 REV. D  
B111701

**Line Total:** \$26.52

10	95606A170	Washer	1/14/2014	100.00		\$0.09	\$8.60
			Yes 1/14/2014	Each			

AS PER DWG D3631 REV. A  
B111019

**Note:**

1/13/2014



200 Aurora Industrial Pkwy  
Aurora ON M4H 4A2  
416-442-8087  
330-995-5500  
cle.sales@mcmaster.com

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawkesbury ON K6A 1K7  
Canada

Purchase Order  
PO22590

Order Placed By  
Chantal Lavoie

McMaster-Carr Number  
6493270-02

01/13/2014

LNS A1

Line	Description	Ordered	Shipped	
6	4629T38 Compartmented Plastic Box, Clear, 5 Compartments, 7" Overall Length Your Part Number: 71500-15  Unit Price: \$4.02 Extended Price: \$12.06	3 Each	3	3 - 234
7	4629T21 Compartmented Plastic Box, Clear, 12 Compartments, 13" Overall Length Your Part Number: 71500-15  Unit Price: \$15.60 Extended Price: \$46.80	3 Each	3	3 - 235
8	90145A630 18-8 Stainless Steel Dowel Pin, 3/8" Diameter, 1-3/4" Length, Packs of 5  Unit Price: \$13.26 Extended Price: \$26.52	2 Packs	2	2 - 690
9	95606A170 Nylon 6/6 General Purpose Flat Washer, Off-White, 7/16" Screw Size, .69" OD, .02"-.04" Thickness, Packs of 100  Unit Price: \$8.60 Extended Price: \$8.60	1 Pack	1	2 - 623
10	59915K274 PTFE-Lined Stainless Steel Ball Joint Rod End, 3/8"-24 Right-Hand Male Shank, 3/8" Ball ID, 1-1/4" L Thread  Unit Price: \$17.14 Extended Price: \$514.20	30 Each	30	3 - 481

Shipped separately from our Chicago warehouse on 01/13

1	3397K22 Small Parts-Washing Safety-Dip Can, with Basket, 1 Gallon Capacity, 9-3/8" OD X 9-1/2" H Can Size	7 Each	1	
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Charges for this shipment

Merchandise Amount:	\$1,087.18
<b>Total:</b>	<b>\$1,087.18</b>